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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,295	04/08/2004	Brian Connell	10360-109001	7444
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CHRISTOPHER & WEISBERG, P.A. 200 EAST LAS OLAS BOULEVARD SUITE 2040 FORT LAUDERDALE, FL 33301				MITCHELL, JASON D
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/820,295	CONNELL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Mitchell	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 April 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-29 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. Claims 1-29 are pending in this application.

### *Examiner's comment*

2. The specification and claims are replete with grammatical and typographical errors such as those discussed below. Applicants' assistance is requested in correcting any informalities not explicitly addressed herein.

### *Drawings*

3. **The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "a network 10" (pg. 6, line 23), "specific code 38" (pg. 8, lines 14-15) "network element 32", "OAM 74" (pg. 12, lines 14-20) and "component model 126" (pg. 18, line 4).** Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "Managed objects or components 18a-c" (Fig. 1), "configuration data 26", "Runtime status data 28", "system event data 30", "Browse 50", "Browse 54", "Schema Generation 58", "EMS/NMS schemas 68", "SNMP Manager 70", "MIBS 72" (Fig. 2), System "120", "defined by 124", and "associated with 150" (Fig. 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

5. The disclosure is objected to because of the following informalities:  
Pg. 7, lines 18-22 recite "Referring to Fig. 2, a development environment 40 ... and a network element management system, the network elements 16a-16c".

The examiner believes this should read "Referring to Fig. 2, a development environment 40 ... and a network element management system are shown. The network elements 16a-16c".

**Pg. 15, line 7 recites "the date may also be referenced".** The examiner believes this should read "the data may also be referenced".

Appropriate correction is required.

#### ***Claim Objections***

6. **Claims 1, 13 and 28-29 are objected to because of the following informalities:**

**Claims 1 and 13 recite "code to support external management interface".**

The examiner believes this should read "code to support an external management interface".

**Claim 13 recites "the global repository is configured to: ... for store the data".** The examiner believes this should read "the global repository is configured to: ... store the data".

**Claim 28 recites "automatically generating code implement an API".** The examiner believes this should read "automatically generating code to implement an API".

**Claim 29 recites "to modeling operational system data".** The examiner believes this should read "to model operational system data".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 3, 6-10, 21, 25-26 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claim 3 recites “documentation corresponds to a code generated implementation”.** In this context, those of ordinary skill in the art would not understand the intended meaning of 'a code generated implementation'. The term has no independent meaning in the art and the specification provides no further explanation. For the purposes of this examination the claim will be treated as reading “documentation corresponds to code generated to support an external management interface”.

**Claims 6-10 each recite language similar to “automatically generating code in implementation of a [specific type of interface]”.** This language does not make it clear if the generated code is intended to actually implement the interface or to be implemented (executed) by the interface. For the purposes of this examination the claims will be treated as directed to code implementing the interfaces.

**Claim 21 recites “the generated system documentation corresponds to a code generated implementation”.** This language does not make clear if the "code generated implementation" is code generated by the 'automatic generation' step of claim 19 or a newly introduced object. For the purposes of this examination the claim will be treated as directed to documentation corresponding to code generated in claim 19.

**Claims 25-26 each recite language similar to “automatically generate code implementat a [specific type of interface]”.** This language does not make it clear if the generated code is intended to actually implement the interface or to be implemented (executed) by the interface. For the purposes of this examination the claims will be treated as directed to code implementing the interfaces.

**Claim 29 recites the limitation "the instructions to cause a machine to model operational system data”.** There is insufficient antecedent basis for this limitation in the claim. For the purposes of this examination claim 29 will be treated as dependent on claim 24 (instead of 19) which comes closest to providing antecedent basis for this language.

#### ***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. **Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**Claim 13** fails to fall within a statutory category of invention. It is directed to a program itself (i.e. a global repository and a pair of interfaces), not a process occurring as a result of executing the program, a machine programmed to operate in accordance with the program or a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality. It's also clearly not directed to a composition of matter. Therefore it is rejected as being non-statutory under 35 USC 101.

**Claims 14-18** depend from claim 20 and do not address this issue and are thus also rejected as being non-statutory under 35 USC 101.

#### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. **Claims 1-2, 5-7, 9, 11-14, 17-20, 23-26 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2003/0046370 to Courtney (Courtney).**

13. **Regarding Claims 1, 13 and 19:** Courtney discloses:

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modeling in a common representation network element commands, events and data from a plurality of sources (par. [0016] "use the same standard configuration format across multiple brands and models of network devices");

translating data represented in a first modeling language to data represented in a second modeling language (par. [0036] "convert the active command format for the network device 165 into an XML and/or DOM format");

storing the data in the second modeling language in a global data model repository (par. [0036] "The resulting DOM can then be stored in the DOM storage device 180"); and

automatically generating code to support an external management interface based on the stored data in the global repository (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices").

In the case of claim 13 it is noted that Courtney further discloses:

a Global repository (Fig. 4, Schema Storage 170);

an interface to a plurality of sources (Fig. 4, Router 165 & Optical Component 165); and

an interface to an external interface (Fig. 4, 175; par. [0038] "the GUI used by the system administrator 175")

**14. Regarding Claims 2, 14 and 20:** The rejections of claims 1, 13 and 19 are incorporated respectively; further, Courtney discloses automatically generating system

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documentation based on the stored data (par. [0038] "the system administrator 175 is presented with network device configurations in a standard, consistent format").

15. **Regarding Claims 5, 17 and 23:** The rejections of claims 1, 13 and 19 are incorporated respectively; further, Courtney discloses the second language is extensible markup language (XML) (par. [0036] "convert the active command format for the network device 165 into an XML ... format").

16. **Regarding Claims 6 and 25:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code in implementation of a command line interface (CLI) (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices").

17. **Regarding Claim 7:** The rejection of claim 1 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code in implementation of an Extensible Markup Language interface (par.[0039] "the standard XML-to-native XML converter").

18. **Regarding Claims 9 and 26:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external

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interface includes automatically generating code in implementation of a configuration database (par. [0045] "an XML storage device 250").

19. **Regarding Claims 11 and 28:** The rejections of claims 1 and 19 are incorporated respectively; further, Courtney discloses automatically generating code for the external interface includes automatically generating code to assist in implementation of an Application Program Interface (par. [0043] "The DOM applications can also include an (API)").

20. **Regarding Claims 12, 18, 24 and 29:** The rejections of claims 1, 13 and 19 are incorporated as appropriate; further, Courtney discloses modeling operational system data from a plurality of sources includes modeling run- time system data from a plurality of sources using at least one of the first language and the second language (par. [0036] "The DOM generator 160 then retrieves the configuration from the network device 165").

***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. **Claims 3, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0046370 to Courtney (Courtney).**

23. **Regarding Claims 3, 15 and 21:** The rejections of claims 2, 14 and 20 are incorporated respectively; further, Courtney does not explicitly disclose the generated documentation corresponds to a code generated implementation.

24. Courtney does teach 'conventional' systems (par. [0031] "Fig. 2 [is] one type of conventional router") that generate documentation corresponding to device interfaces (par. [0032] "the system administrator 125 can review available configuration commands and associated bounds by accessing and reviewing the commands stored in the command storage module 140").

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to generate system documentation (par. [0038] "the system administrator 175 is presented with network device configurations in a standard, consistent format") corresponding to generated code implementations (par. [0040] "the XML-CLI converter 200 allows the system administrator 175 to interface with CLI-based network devices"). Those of ordinary skill in the art would have been motivated to make this modification in order to provide a "help" screen (see par. [0032]) to administrators using the disclosed GUI to re-configure a displayed network (par. [0038]).

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26. **Claims 4, 8, 10, 16, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0046370 to Courtney (Courtney) in view of Applicant Acknowledged Prior Art Techniques.**

27. **Regarding Claims 4, 8, 10, 16, 22 and 27:** The rejections of claims 1, 13 and 19 are incorporated as appropriate; further Courtney does not disclose use of SMI, SNMP or SNMP subagents.

28. Applicant acknowledges the Simple Network Management Protocol (SNMP) and it's associated SMI language and subagents were known and used in the prior art to describe network devices (see e.g. pg. 10, line 13-23).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to expand Courtney's system with a converter (par. [0016] "retrieving a network device's configuration, in a native format, from the network device ... and converting it into a standard-format configuration") to handle the configurations and commands of devices defined using SNMP and it's associated SMI language and subagents (par. [0016] "retrieving a network device's configuration, in a native format"). Those of ordinary skill in the art would have been motivated to make such a change in order to provide a user friendly interface to devices whose interfaces conform to the SNMP specification (par. [0013] "a system and method are needed ... to create user-

friendly interfaces for ... devices"; par. [0016] "allow system administrators to use the same standard configuration format across multiple ... network devices").

### ***Conclusion***

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2002/0069271 to Tindal et al.; US 2002/0069274 to Tindal et al.; 2002/0069275 to Tindal et al.; 2002/0069291 to Tindal et al.; 2002/0069340 to Tindal et al.; 2002/0069367 to Tindal et al.; 2003/0051008 to Gorthy et al.; 6,978,301 to Tindal et al.; 7,054,946 to Tindal et al.; 7,200,548 to Courtney; and 7,249,170 to Tindal et al. are each related patents or pg-pubs related to the Courtney reference and provide related and/or overlapping disclosures.

US 2002/0161863 to McGuire discloses network configuration using generic configuration commands.

US 2003/0048287 to Little et al. discloses a CLI description language implemented in XML.

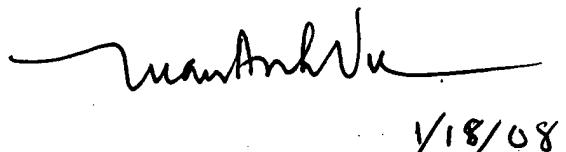
US 5,832,503 to Malik et al. discloses Configuration Management techniques. "Introduction and Applicability Statements for Internet Standard Management Framework" by Case et al. and SNMP DPI Version 2.0 by Wijnen et al. disclose aspects of the Standard Network Management Protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/  
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1/17/08

  
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